

PATENT COOPERATION TREATY

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing: 17 August 2000 (17.08.00)	
International application No.: PCT/IT99/00358	Applicant's or agent's file reference:
International filing date: 09 November 1999 (09.11.99)	Priority date: 12 February 1999 (12.02.99)
Applicant: TALMON, Emilio	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International preliminary Examining Authority on:
15 June 2000 (15.06.00)☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer: J. Zahra Telephone No.: (41-22) 338.83.38
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CLAIMS

1. Lid (30) applied by pressure to a can (10) containing drinks (28),
said can having a cylindrical body (11) and truncated cone-
shaped mouth (12) at the top closed by a head (15) with a raised
5 rim (16) and an aperture (23) obtainable by tearing off a tongue-
shaped strip (19),
characterized in that it presents a concave base, a truncated cone-
shaped body (33) and a cylindrical mouth (32) whose shape and
internal dimensions correspond to the shape and external dimen-
10 sions of the top of the can (10), substantially permitting reciprocal
matching between the truncated cone-shaped body and cylindrical
mouth respectively with the truncated cone-shaped mouth (12) and
cylindrical body (11) of the can (10).
2. Lid (30) applied by pressure to a can (10) for drinks (28) as in
15 claim 1,
characterized in that the concave base presents an external raised
rim (34) of a substantially U-shaped cross section, that matches
with the raised rim (16) on the head (15) of the can (10), height of
the internal wall of the rim (34) on the lid (30) being substantially
20 that of the raised rim (16) on the head (15) of the can (10), the
cylindrical mouth (32) in the lid (30) extending to match, for a few
millimetres, with the cylindrical body (11) of the can (10).
3. Lid (30) applied by pressure to a can (10) for drinks (28) as in
claim 1,
25 characterized in that on its concave base there is a protruberance
(45) substantially of the same shape as the aperture (23) in the
opened can (10) but slightly larger so that, on applying the lid (30)
to the can (10), the position of the protruberance (45) corresponds
radially to that of the aperture (23) and when said protruberance
30 (45) is forced inside said aperture (23) it acts as a stopper
hermetically closing the can (11) avoiding accidental spillage of the

drink (28) if not fully consumed, as well as making it possible to consume it as desired, removing the lid (30) from the can each time.

4. Lid (30) applied by pressure to a can (10) for drinks (28) as in
5 claim 1,

characterized in that, at the beginning and end of its truncated cone-shaped body (33), it presents two annular ribs (48, 49) to make a seal, said ribs matching with the beginning and end of the truncated cone-shaped mouth (12) of the can (10).

10 5. Lid (30) applied by pressure to a can (10) for drinks (28) as in claims 1[and 4]

characterized in that it presents two vent holes, one (46) placed substantially at the centre of its concave base (31) and the other (47) between the two annular ribs (48, 49) on its truncated cone-
15 shaped body (33).

6. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

characterized in that, substantially at the meeting point between its truncated cone-shaped body (33) and cylindrical mouth (32), is an
20 external handle (40), facing upwards and adhering to said body prior to use, said handle (40) being easily rotated outwards to assist the pull on the lid (30) in order to detach it from the can (10).

7. Lid (30) applied by pressure to a can (10) for drinks (28) as in claims 1[and 6,]

25 characterized in that it presents, about halfway up said handle (40) two lateral notches (43) and a transversal dimension so that, by making a slight longitudinal bend, it is able to enter the aperture (23) in the can (10), after all the drink (28) has been consumed, becoming inserted in said notches (43) in the edge of said aperture
30 (23), thus fixing the can (10) and lid (30) together, preventing their coming apart and the lid (30) forming an item of waste to pollute the

environment.

8. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

characterized in that its height is comprised between 8 and 25 mm.

5 9. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

characterized in that it is made in a single piece.

10. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

10 characterized in that it is made of plastic material.

characterized in that it is made of moderately elastic plastic material.

11. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

12. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

15 characterized in that it is made of rubber.

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/IT 99/ 00358	International filing date (day/month/year) 09/11/1999	(Earliest) Priority Date (day/month/year) 12/02/1999
Applicant TALMON, Emilio		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

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☐ None of the figures.

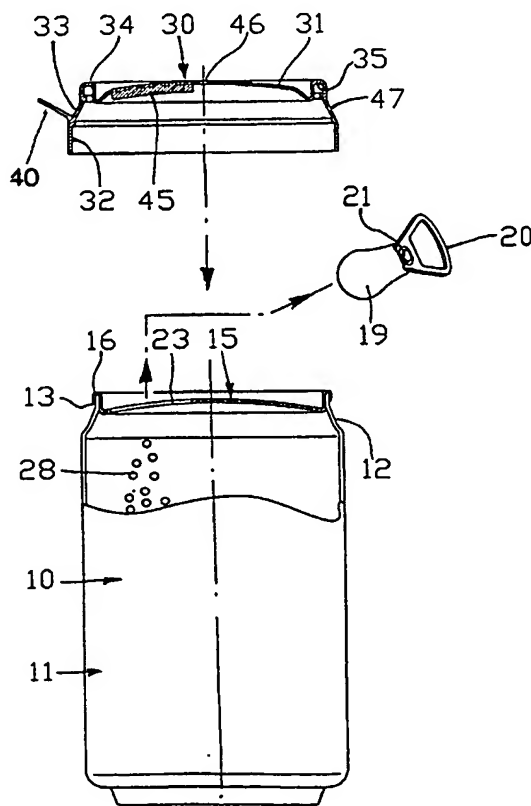


INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : B65D 51/00	A1	(11) International Publication Number: WO 00/47486 (43) International Publication Date: 17 August 2000 (17.08.00)
(21) International Application Number: PCT/IT99/00358 (22) International Filing Date: 9 November 1999 (09.11.99) (30) Priority Data: TN99A000006 12 February 1999 (12.02.99) IT TN99A000010 11 May 1999 (11.05.99) IT TN99A000015 17 September 1999 (17.09.99) IT MI99A002305 4 November 1999 (04.11.99) IT (71)(72) Applicant and Inventor: TALMON, Emilio [IT/IT]; Via Pareda, 70, I-38032 Canazei (IT). (74) Agent: DIGIOVANNI, Italo; Brevetti Dott. Ing. Digiovanni Schmiedt S.r.l., Via Aldrovandi, 7, I-20129 Milano (IT).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: LID APPLIED BY PRESSURE TO CANS CONTAINING DRINKS**(57) Abstract**

Lid (30) of plastic material, applied by pressure, having a lateral handle (40), purpose of said lid being to protect the top of the can (10) for drinks (28) against pollution, an opening (23) being made by a tear-off tongue (19), said lid matching substantially with the top of the can, its internal facing having on it a protruberance that, acting as a stopper (45), hermetically closes the aperture (23) in the can (10) when opened, thus avoiding accidental spillage of the drink (28) remaining in the can.



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Lid applied by pressure to cans containing drinks

The invention concerns packaging of drinks in cans.

Cans containing drinks that can be drunk through an aperture made in the top surface of the can are in everyday use, the aperture being
15 created by pulling off a strip prepared for the purpose, and by application of a ring fixed by a pin at the rear end of said strip, which ring, before being pulled up, lies flat on said top surface of the can.

The serious drawback connected with these cans is that there is nothing to protect the surface from dirt liable to accumulate during
20 storage and transport.

Further, once open, there is no real way of closing the can which may means loss or, in any case deterioration, of any liquid not immediately drunk after opening the can.

The invention here described solves both these problems, that of
25 dirt accumulating on the top surface and that of preserving the quality of the drink to be consumed later, as will now be explained.

Subject of the invention is a lid applied by pressure to a can for drinks having a cylindrical body and truncated cone-shaped mouth at the closed top of a head round which is a raised edge, and an
30 aperture which can be formed by pulling off a tongue-shaped strip

The shape and internal dimensions of said lid correspond to the

shape and external dimensions of the top of the can to allow substantially reciprocal matching between the lid's truncated cone-shaped body and cylindrical mouth and the truncated cone-shaped mouth and cylindrical body of the can.

- 5 The base of said lid is concave presenting an external raised rim of a substantially U-shaped cross section, said rim matching with the raised edge round the upper surface of the can.

The height of the internal wall of the rim round the lid is substantially the same as that of the raised edge on the upper surface of the
10 can.

The cylindrical mouth in the lid extends to match, for a few millimetres, with the cylindrical body of the can.

There is a protruberance on the base of the lid, shaped substantially like the aperture in the opened can, and slightly larger

- 15 On applying the lid to the can so that the position of the protruberance corresponds radially to said aperture, said protruberance can therefore be pressed down inside the aperture, like a stopper, closing the can hermetically, avoiding any spillage of liquid, if not entirely drunk, and keeping the remainder unaltered for later
20 consumption by simply removing the lid each time.

At the beginning and end of the truncated cone-shaped body of the lid are two annular sealing ribs that match with the beginning and end of the lid's truncated cone-shaped mouth.

- Two vent holes (46, 47) are made in the lid substantially in the
25 centre of its concave base and at the position of its truncated cone-shaped body between the two annular ribs.

- A handle is situated on the outside of the lid, substantially at the meeting point between its truncated cone-shaped body and the cylindrical mouth; before use, this handle faces towards the top of
30 the lid, lying flat against said lid's body, from where it can be easily rotated outwards for pulling the lid to detach it from the can.

Two lateral notches are cut into the handle about halfway along it, the transversal size of the handle being such that, when slightly bent longitudinally, it enters the aperture in the can, after all its contents have been drunk, until the edge of the aperture enters the notches fixing can and lid together to prevent them from falling apart and polluting the environment.

In one type of execution lid height is between 8 and 25 mm.

The lid is preferably made in one piece and of moderately elastic material which may be plastic, rubber or some equivalent.

10 The invention offers evident advantages.

The top of the can is protected against pollution by means of a light and practically bulkless lid of negligible cost, the aperture for consumption of the drink being made in the top of the can by pulling off the tongue-shaped strip.

15 As the top of the can has a practically hermetic seal, the lid prevents pollution through accumulation of dirt and dust which, on opening the can, could fall into the drink making it unhealthy.

The presence of the lateral handle makes lifting the lid off in order to reach the contents an extremely simple and natural gesture.

20 As the lid can be put on again each time a drink is taken, any quantity left in the can is safe from pollution and its original high quality is fully maintained.

To sum up these advantages, a simple means of negligible cost not only protects the drink against pollution but also ensures that its full flavour and other characteristics remain unimpaired.

25 Characteristics and purposes of the disclosure will be made still clearer by the following examples of its execution illustrated by diagrammatically drawn figures.

Fig. 1 A can to be opened by pulling off a tongue-shaped strip, seen closed, with the lid on, perspective view.

30 Fig. 2 As above, a longitudinal section.

Fig. 3 The can without lid, seen from above.

Fig. 4 A can being opened by pulling off the tongue, when the lid is being pressed on.

Fig. 5 Longitudinal section of the lid, with detail.

5 Fig. 6 The lid seen from inside.

Fig. 7 The can when open, with the lid on, longitudinal section.

Fig. 8 As in Fig 7, seen from above.

Fig. 9 The can open, with the handle of the lid fitted into the aperture, after emptying.

10 The can 10, of a well-known type, comprises the body 11 with (Figs 2, 4) the truncated cone-shaped mouth 12 and cylindrical rim 13.

This mouth is closed by the head 15 with U-shaped edge 16.

On the convex body of the head a tongue-shaped strip 19 is made by a prepared tear-off surround 22, to the end of which a pin 21

15 fixes the trapedzoidal ring-shaped handle 20.

The shape of the protective lid 30, of plastic material is substantially that of the top of the can, and comprises a cylindrical mouth 32 that connects, by means of the truncated cone-shaped body 33, with a convex base 31 through the raised U-shaped edge 34 whose

20 internal channel 35 fits over the rim 16 of the can.

On the base 31 of the lid, at a position radially corresponding to that of the aperture 23 created in the head 15 by pulling off the tongue 19, there is a protruberance 45 whose shape corresponds to that of said aperture 23, so that on fitting the lid over the opened can

25 (figures 7, 8) said protruberance acts as a stopper (see also Fig.9).

It is clear from the foregoing that the lid 30 (Figs. 1 and 2) provides a hygienic protection to the top of the can 10, preventing the accumulation of dirt thereon during storage and transport.

Protection is also ensured by the fact that, as clearly seen in

30 Figures 5 and 7, there are two annular ribs on the lid, 48 and 49, placed respectively between the cylindrical mouth 32 and the

truncated cone-shaped body 33 that connect with the base 31 and adhere to the can 10 at the position of its truncated cone-shaped mouth 12.

These annular ribs create what is substantially a hermetic chamber comprising two vent holes, hole 46 at the centre of the base 31 of the lid, and hole 47 on the truncated cone-shaped body 33.

To detach the lid 30 from the can when about to be opened, a handle 40 is fixed to said lid 30 at the point between the truncated cone-shaped body 33 and the cylindrical mouth 32, said handle having in it (Figs 1, 8) a central aperture 41 and notches 43 in the edges of its sides 42.

To facilitate pulling the handle which, prior to use, lies flat against the truncated cone-shaped body 33 of the lid, said handle can be rotated outwards as shown in Figures 4, 7, 8.

If the drink has not been finished, the remaining quantity 28 can be protected by pressing the lid back on as seen in Figures 4, 7 and 8. The lid adheres closely to the top of the can both on account of its shape and because of the presence of the ribs 48, 49.

Forced penetration of the stopper 45 inside the aperture 23 in the head 15 of the can, not only keeps the drink clean but also prevents accidental spillage until the whole quantity has been consumed.

On consuming the contents 28 of the can, after longitudinally bending the handle and forcing it inside the aperture 23 in the head of the can (Fig. 9), the edges of said aperture 23 can penetrate inside the notches 43 (Fig 9), so forming a stable connection between can and lid and preventing the latter from becoming an item of polluting waste if dropped on the ground.

As the above invention has been described and explained as one example only and to show its essential features, many variations may be made to it according to industrial, commercial and other requirements, or be included in other systems and means without

departing from its sphere of operation.

It is therefore understood that the application to patent comprises any equivalent application of the concepts therein expressed or any equivalent product executed and/or operating according to any one

5 or more of the following claims.

CLAIMS

1. Lid (30) applied by pressure to a can (10) containing drinks (28),
said can having a cylindrical body (11) and truncated cone-
shaped mouth (12) at the top closed by a head (15) with a raised
5 rim (16) and an aperture (23) obtainable by tearing off a tongue-
shaped strip (19),

characterized in that it presents a concave base, a truncated cone-
shaped body (33) and a cylindrical mouth (32) whose shape and
internal dimensions correspond to the shape and external dimen-
10 sions of the top of the can (10), substantially permitting reciprocal
matching between the truncated cone-shaped body and cylindrical
mouth respectively with the truncated cone-shaped mouth (12) and
cylindrical body (11) of the can (10).

2. Lid (30) applied by pressure to a can (10) for drinks (28) as in
15 claim 1,

characterized in that the concave base presents an external raised
rim (34) of a substantially U-shaped cross section, that matches
with the raised rim (16) on the head (15) of the can (10), height of
the internal wall of the rim (34) on the lid (30) being substantially
20 that of the raised rim (16) on the head (15) of the can (10), the
cylindrical mouth (32) in the lid (30) extending to match, for a few
millimetres, with the cylindrical body (11) of the can (10).

3. Lid (30) applied by pressure to a can (10) for drinks (28) as in
claim 1,

25 characterized in that on its concave base there is a protruberance
(45) substantially of the same shape as the aperture (23) in the
opened can (10) but slightly larger so that, on applying the lid (30)
to the can (10), the position of the protruberance (45) corresponds
radially to that of the aperture (23) and when said protruberance
30 (45) is forced inside said aperture (23) it acts as a stopper
hermetically closing the can (11) avoiding accidental spillage of the

drink (28) if not fully consumed, as well as making it possible to consume it as desired, removing the lid (30) from the can each time.

4. Lid (30) applied by pressure to a can (10) for drinks (28) as in
5 claim 1,

characterized in that, at the beginning and end of its truncated cone-shaped body (33), it presents two annular ribs (48, 49) to make a seal, said ribs matching with the beginning and end of the truncated cone-shaped mouth (12) of the can (10).

- 10 5. Lid (30) applied by pressure to a can (10) for drinks (28) as in claims 1 and 4

characterized in that it presents two vent holes, one (46) placed substantially at the centre of its concave base (31) and the other (47) between the two annular ribs (48, 49) on its truncated cone-shaped body (33).

- 15 6. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

characterized in that, substantially at the meeting point between its truncated cone-shaped body (33) and cylindrical mouth (32), is an
20 external handle (40), facing upwards and adhering to said body prior to use, said handle (40) being easily rotated outwards to assist the pull on the lid (30) in order to detach it from the can (10).

7. Lid (30) applied by pressure to a can (10) for drinks (28) as in claims 1 and 6,

25 characterized in that it presents, about halfway up said handle (40) two lateral notches (43) and a transversal dimension so that, by making a slight longitudinal bend, it is able to enter the aperture (23) in the can (10), after all the drink (28) has been consumed, becoming inserted in said notches (43) in the edge of said aperture
30 (23), thus fixing the can (10) and lid (30) together, preventing their coming apart and the lid (30) forming an item of waste to pollute the

environment.

8. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

characterized in that its height is comprised between 8 and 25 mm.

5 9. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

characterized in that it is made in a single piece.

10. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

10 characterized in that it is made of plastic material.

characterized in that it is made of moderately elastic plastic material.

11. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

12. Lid (30) applied by pressure to a can (10) for drinks (28) as in claim 1,

15 characterized in that it is made of rubber.

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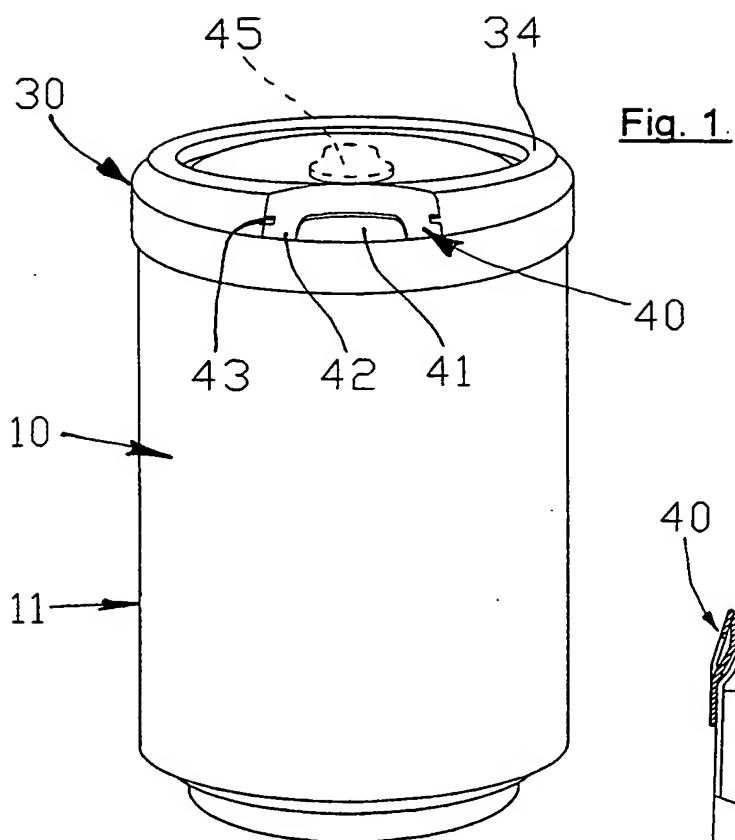


Fig. 2

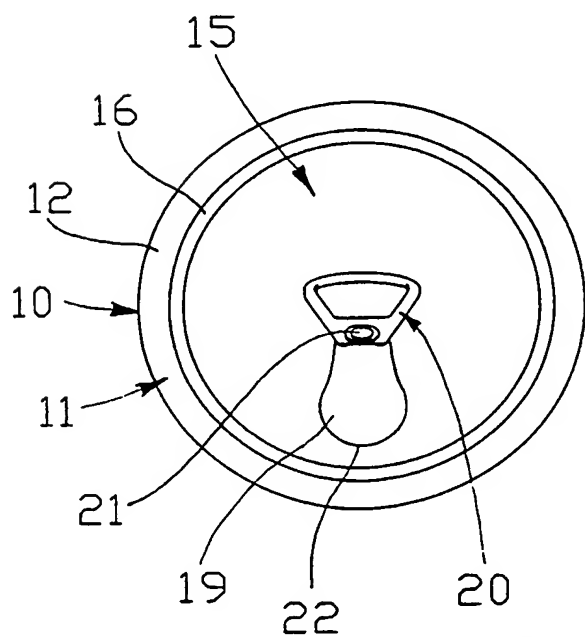
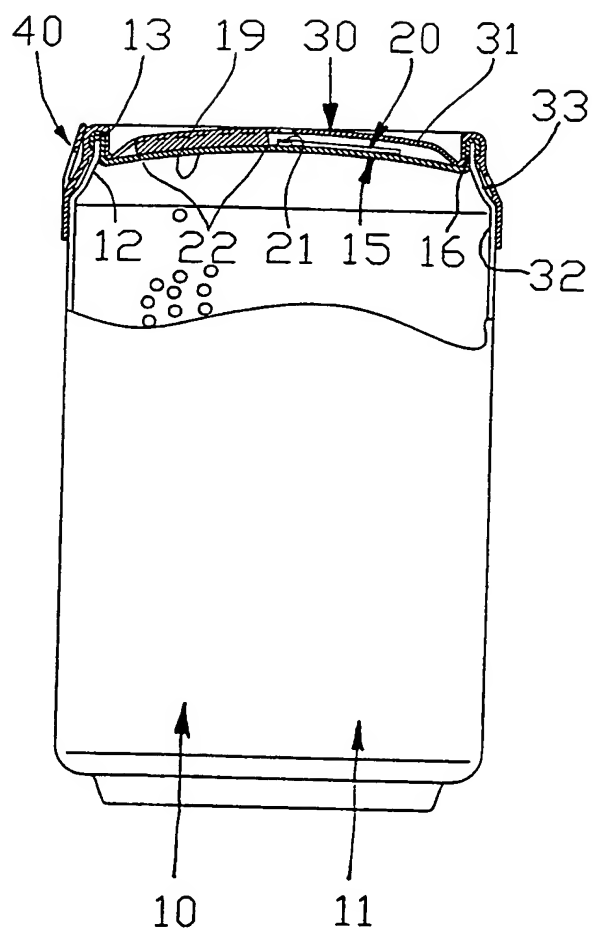


Fig. 3

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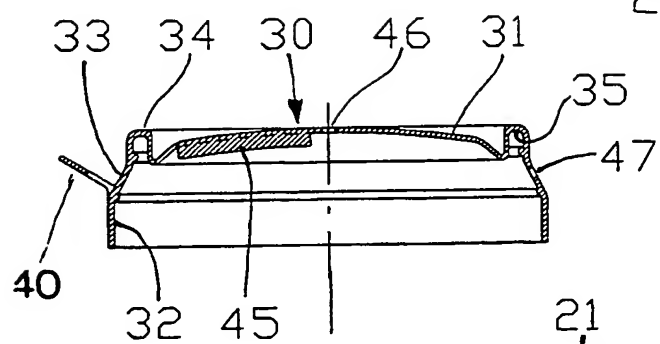


Fig. 4

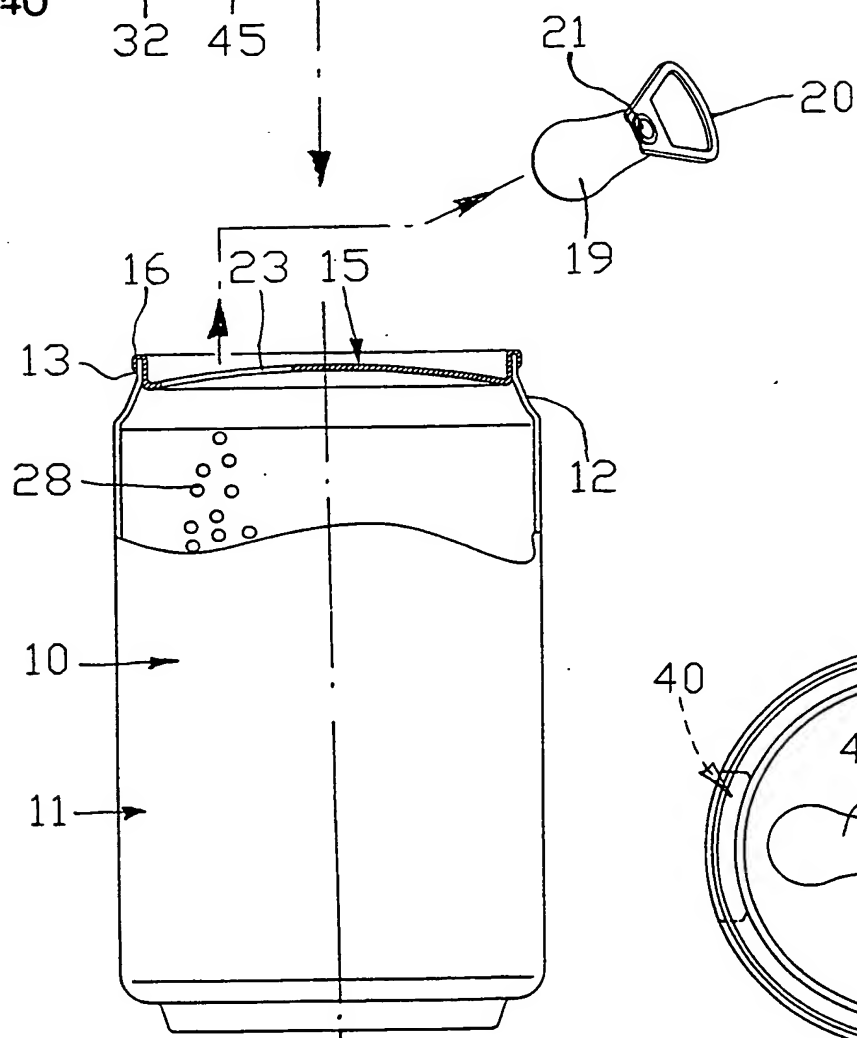


Fig. 6

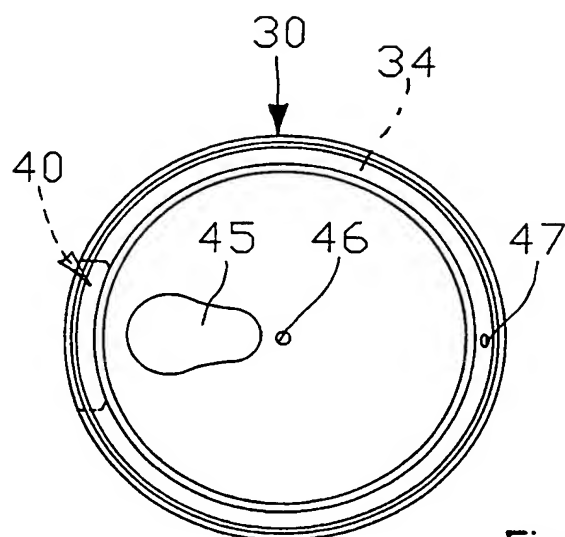
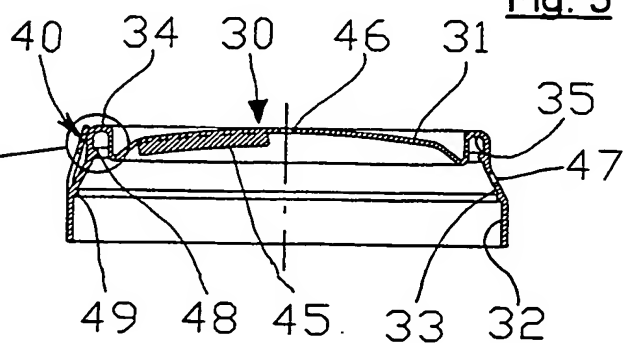
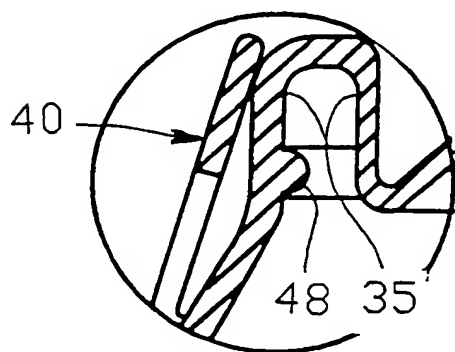


Fig. 5



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Fig. 7

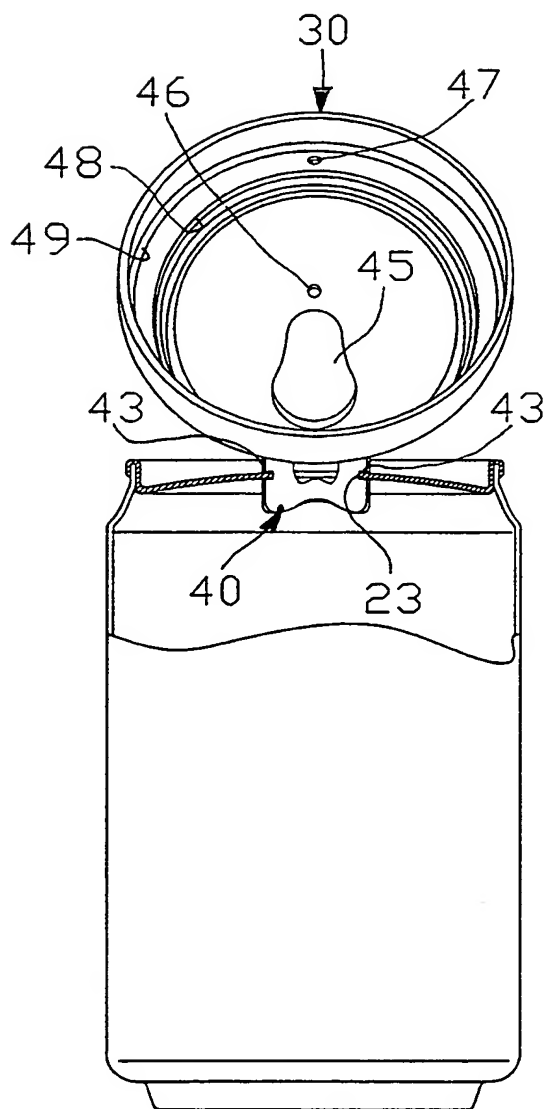
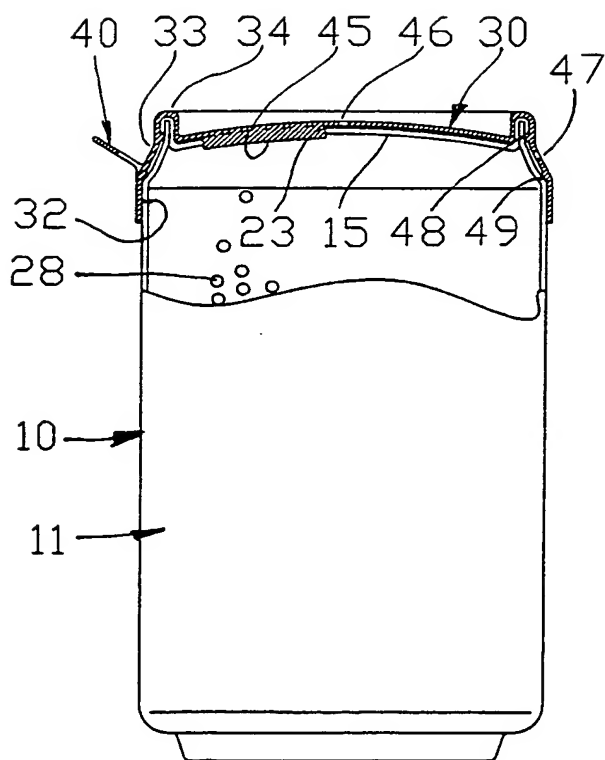


Fig. 9

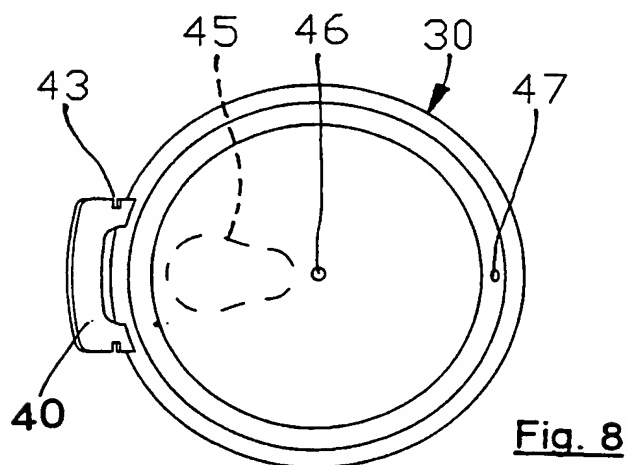


Fig. 8

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IT 99/00358

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B65D51/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 105 964 A (HEATH) 21 April 1992 (1992-04-21)	1, 2, 9, 10
A	column 2, line 30 -column 3, line 48; figures 1, 2	4
A	US 4 917 258 A (BOYD ET AL.) 17 April 1990 (1990-04-17)	1, 2, 4, 6, 10, 11
A	column 5, line 32 -column 6, line 60; figures 3, 4	
A	WO 98 35883 A (CAGAN) 20 August 1998 (1998-08-20)	3
A	page 10, line 10 -page 11, line 9; figures 6-8	
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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